

(43) International Publication Date
1 September 2005 (01.09.2005)

PCT

(10) International Publication Number
WO 2005/081439 A1(51) International Patent Classification⁷:

H04J 11/00

(21) International Application Number:

PCT/US2005/004601

(22) International Filing Date: 14 February 2005 (14.02.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/544,521 13 February 2004 (13.02.2004) US

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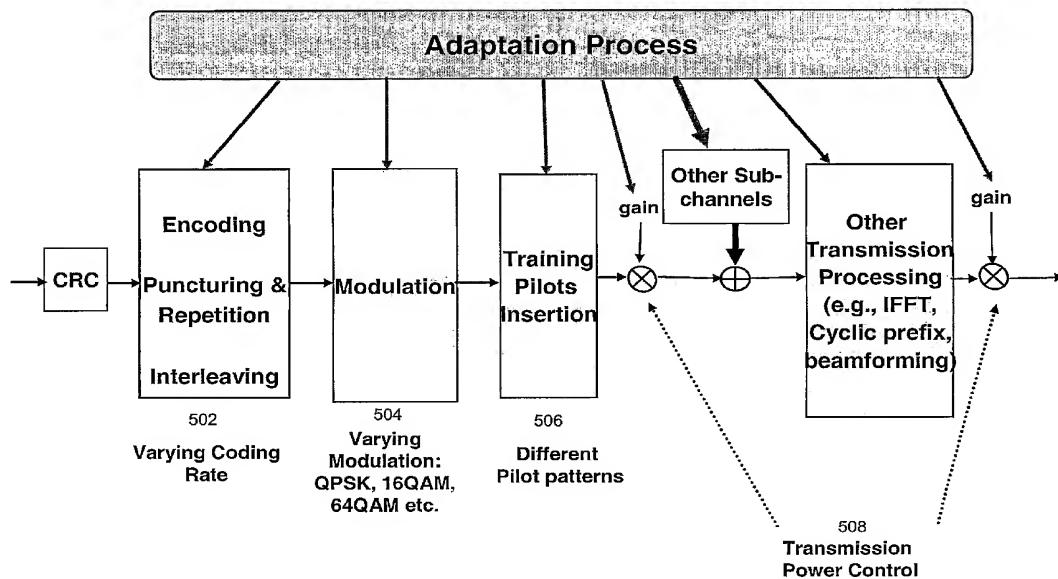
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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: METHODS AND APPARATUS FOR MULTI-CARRIER COMMUNICATION SYSTEMS WITH ADAPTIVE TRANSMISSION AND FEEDBACK



(57) **Abstract:** An arrangement is disclosed where in a multi-carrier communication system (Figure 1), the modulation scheme (Fig. 5, 504), coding attributes (Fig. 5, 502), training pilots (Fig. 5, 506), and signal power (Fig. 508) may be adjusted to adapt to channel conditions in order to maximize the overall system capacity and spectral efficiency without wasting radio resources or compromising error probability performance.

WO 2005/081439 A1



Published:

— *with international search report*

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